

LISTING OF CLAIMS:

1-22. (cancelled)

23. (withdrawn) A purified HIV-1 virus,

wherein said virus encodes a Gag protein comprising an amino acid sequence that comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

24. (withdrawn) The HIV-1 virus of claim 23, wherein said amino acid sequence comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

25. (withdrawn) The HIV-1 virus of claim 23, wherein said amino acid sequence comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

26. (withdrawn) The HIV-1 virus of claim 25, wherein said amino acid sequence comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

27. (withdrawn) The HIV-1 virus of claim 25, wherein said amino acid sequence comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

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28. (withdrawn) The HIV-1 virus of claim 25, wherein said amino acid sequence comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

29. (withdrawn) A purified HIV-1 virus,
wherein said virus encodes a Pol protein comprising an amino acid sequence that comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

30. (withdrawn) The HIV-1 virus of claim 29, wherein said amino acid sequence comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

31. (withdrawn) The HIV-1 virus of claim 29, wherein said amino acid sequence comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

32. (withdrawn) The HIV-1 virus of claim 31, wherein said amino acid sequence comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

33. (withdrawn) The HIV-1 virus of claim 31, wherein said amino acid sequence comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI

that are not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

34. (withdrawn) The HIV-1 virus of claim 31, wherein said amino acid sequence comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

35. (previously presented) A purified HIV-1 virus,
wherein said virus encodes an Env protein having an amino acid sequence comprising amino acids of HIV-1ELI Env protein,

wherein said amino acids of HIV-1ELI Env protein comprise at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2, and

wherein said amino acid residue is selected from the group consisting of S⁶³, E⁶⁵, A⁶⁸, I⁷¹, I⁸⁷, A⁸⁸, E⁹⁰, A²¹⁵, R²⁴⁴, D²⁴⁵, K²⁴⁷, I²⁸⁶, Q⁵⁰⁹, R⁵¹⁹, E⁵²⁶, or Q⁶⁹⁷, as described in Figures 3E and 3F.

36. (previously presented) The HIV-1 virus of claim 35, wherein said amino acid sequence comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

37. (previously added) The HIV-1 virus of claim 35, wherein said amino acid sequence comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

38. (previously presented) The HIV-1 virus of claim 37, wherein said amino acid sequence comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

39. (previously presented) The HIV-1 virus of claim 37, wherein said amino acid sequence comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

40. (previously presented) The HIV-1 virus of claim 37, wherein said amino acid sequence comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

41. (withdrawn) A purified HIV-1 polypeptide fragment,
wherein said polypeptide fragment binds to antibodies in LAS patient sera, and
wherein said polypeptide fragment comprises an amino acid sequence that comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

42. (withdrawn) The polypeptide fragment of claim 41, wherein said polypeptide fragment comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

43. (withdrawn) The polypeptide fragment of claim 41, wherein said polypeptide fragment comprises more than 1 amino acid residue of the amino acid

sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

44. (withdrawn) The polypeptide fragment of claim 43, wherein said polypeptide fragment comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

45. (withdrawn) The polypeptide fragment of claim 43, wherein said polypeptide fragment comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

46. (withdrawn) The polypeptide fragment of claim 43, wherein said polypeptide fragment comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

47. (withdrawn) The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment comprises 5-150 amino acid residues.

48. (withdrawn) The polypeptide fragment of claim 47, wherein said polypeptide fragment comprises 5-250 amino acid residues.

49. (withdrawn) The polypeptide fragment of claim 47, wherein said polypeptide fragment comprises one or more Asn-X-Thr or Asn-X-Ser groups.

50. (withdrawn) The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment is a fragment of HIV-1 Gag.

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51. (withdrawn) The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment is a fragment of HIV-1 Pol.

52. (withdrawn) The polypeptide fragment of any of claims 41-46, wherein said polypeptide fragment is a fragment of HIV-1 Env.

53. (withdrawn) A purified HIV-1 nucleic acid fragment,
wherein said nucleic acid fragment encodes a polypeptide fragment,
wherein said polypeptide fragment binds to antibodies in LAS patient sera, and
wherein said polypeptide fragment comprises an amino acid sequence that
comprises at least 1 amino acid residue of the amino acid sequence of HIV-1ELI that
is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

54. (withdrawn) The nucleic acid fragment of claim 53, wherein said encoded polypeptide fragment comprises 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

55. (withdrawn) The nucleic acid fragment of claim 53, wherein said encoded polypeptide fragment comprises more than 1 amino acid residue of the amino acid sequence of HIV-1ELI that is not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

56. (withdrawn) The nucleic acid fragment of claim 55, wherein said encoded polypeptide fragment comprises 3 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIIB, HIV-1BRU, or HIV-1ARV-2.

57. (withdrawn) The nucleic acid fragment of claim 55, wherein said encoded polypeptide fragment comprises 5 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

58. (withdrawn) The nucleic acid fragment of claim 55, wherein said encoded polypeptide fragment comprises 7 amino acid residues of the amino acid sequence of HIV-1ELI that are not present in the amino acid sequence of HIV-1IIB, HIV-1BRU, or HIV-1ARV-2.

59. (withdrawn) The nucleic acid fragment of any of claims 53-58, wherein said encoded polypeptide fragment comprises 5-150 amino acid residues.

60. (withdrawn) The nucleic acid fragment of claim 59, wherein said encoded polypeptide fragment comprises 5-250 amino acid residues.

61. (withdrawn) The nucleic acid fragment of claim 59, wherein said encoded polypeptide fragment comprises one or more Asn-X-Thr or Asn-X-Ser groups.

62. (withdrawn) The nucleic acid fragment of any of claims 53-58, wherein said polypeptide fragment is a fragment of HIV-1 Gag.

63. (withdrawn) The nucleic acid fragment of any of claims 53-58, wherein said polypeptide fragment is a fragment of HIV-1 Pol.

64. (withdrawn) The nucleic acid fragment of any of claims 53-58, wherein said polypeptide fragment is a fragment of HIV-1 Env.

65. (new) A purified HIV-1 virus,

wherein said virus encodes an Env protein having an amino acid sequence comprising amino acid residues that are not present in the amino acid sequence of HIV-1_{BRU} or HIV-1_{ARV-2} Env proteins,

wherein said amino acid residues are S⁶³, E⁶⁵, I⁷¹, I⁸⁷, E⁹⁰, D²⁴⁵, K²⁴⁷, and E⁵²⁶, as described in Figures 3E and 3F.

66. (new) The purified virus of claim 65,

wherein said amino acid residues are S⁶³, E⁶⁵, I⁷¹, I⁸⁷, A/E⁸⁸, E⁹⁰, D²⁴⁵, K²⁴⁷, I/M²⁸⁶, Q/R⁵⁰⁹, E⁵²⁶, and K/Q⁶⁹⁷, as described in Figures 3E and 3F.

67. (new) The purified virus of claim 65,

wherein said amino acid residues are S⁶³, E⁶⁵, A⁶⁸, I⁷¹, I⁸⁷, A/E⁸⁸, E⁹⁰, A²¹⁵, R²⁴⁴, D²⁴⁵, K²⁴⁷, I/M²⁸⁶, Q/R⁵⁰⁹, R⁵¹⁹, E⁵²⁶, and K/Q⁶⁹⁷, as described in Figures 3E and 3F.